

# **Area Source Boiler NESHAP and Major Source Boiler MACT**

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## **Presentation Overview**

### **Area Source Boiler NESHAP (6J)**

- Applicability and exemptions
- Subcategories and requirements
- Reports and notifications

### **Major Source Boiler and Process Heater MACT (5D)**

- Applicability and exemptions
- Subcategories and requirements
- Reports and notifications

## **Resource List**

- Most of the EPA resources are available at <http://www.epa.gov/boilercompliance/>
- A few of the 5D tools are only available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>

## **General – 6J**

### Area Source Boiler Rule Videos

- Description: four video segments about 6J NESHAP: overview (13:20), energy assessments (32:16), tune-ups (12:44), and reporting/recordkeeping (7:59)
- How to find: “What’s New?” section at <http://www.epa.gov/boilercompliance/>

### Slides from June 2013 EPA webinars on 6J

<http://www.epa.gov/boilercompliance/r1webinarJune25and27-13.pdf>

### Full text of rule

<http://www.gpo.gov/fdsys/pkg/CFR-2013-title40-vol15/pdf/CFR-2013-title40-vol15-part63-subpartJJJJJ.pdf>

### Reconsideration letter

<http://www.epa.gov/ttn/atw/boiler/LettersArea2013.pdf>

### Small entity compliance guide

<http://www.epa.gov/ttn/atw/boiler/imptools/AreasourcesmallbizcomplianceguideMar2013.pdf>

## **General – 5D**

### Full text of rule

<http://www.gpo.gov/fdsys/pkg/CFR-2013-title40-vol14/pdf/CFR-2013-title40-vol14-part63-subpartDDDDD.pdf>

### Reconsideration letter

<http://www.epa.gov/ttn/atw/boiler/LettersMajor2013.pdf>

### Small entity compliance guide

<http://www.epa.gov/ttn/atw/boiler/imptools/20130312complianceguide.pdf>

## **Tune-ups**

### Tune-up Guidance and Example Recordkeeping Form

- Description: 8-page Word document that includes rule information on tune-ups and a recordkeeping form that can be used to document tune-ups
- Current web address of document:  
[http://www.epa.gov/ttn/atw/boiler/imptools/area\\_tuneup\\_info\\_only.docx](http://www.epa.gov/ttn/atw/boiler/imptools/area_tuneup_info_only.docx)

### Tune-up Guide for Owners and Operators - Area Sources (PDF)

- Description: Six-page guide EPA put together for facilities subject to 6J
- Current web address of document [http://www.epa.gov/ttn/atw/boiler/imptools/tune-up\\_guide.pdf](http://www.epa.gov/ttn/atw/boiler/imptools/tune-up_guide.pdf)

### Tune-up Guide for Technicians - Area Sources (PDF)

- Description: 72-page guide used as basis for six-page guide listed above
- Current web address of document:  
[http://www.epa.gov/ttn/atw/boiler/imptools/boiler\\_tune-up\\_guide-v1.pdf](http://www.epa.gov/ttn/atw/boiler/imptools/boiler_tune-up_guide-v1.pdf)

## **Energy Assessments**

### Summary of Energy Assessment Requirements for Area Source Boilers (PDF)

- Description: 2-page summary of energy assessment requirements, including the elements that need to be addressed, the qualifications for an energy assessor, and the technical hours guidelines
- Current web address of document:  
<http://www.epa.gov/ttn/atw/boiler/imptools/SummaryEnergyAssessmentsAreaSourceBoilersFinal.pdf>

### Lots of information on DOE website

- <http://www1.eere.energy.gov/manufacturing/distributedenergy/boilermact.html>
- Most of this information is geared toward Major Source MACT, 5D

## 5D Major Source Boiler MACT Summary (Adapted from Table 1 of EPA’s “Small Entity Compliance Guide for Major Source Boilers and Process Heaters”)

Subcategory			Summary of Requirement
<b>Existing large major source boilers and process heaters</b>	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction on or before June 4, 2010</li> <li>Greater than or equal to 10 MMBtu/hr</li> </ul>	Clean Gas (Natural gas, refinery gas)	<ul style="list-style-type: none"> <li>Tune-up every year<sup>a</sup></li> <li>One-time energy assessment</li> <li>No numeric emission limits</li> </ul>
		Coal, Biomass, Oil, and Process Gas	<ul style="list-style-type: none"> <li>Tune-up every year<sup>a</sup></li> <li>One-time energy assessment</li> <li>Numeric emission limits for mercury (Hg), carbon monoxide (CO), hydrogen chloride (HCl), and either particulate matter (PM) or total selected metals (TSM)<sup>b</sup></li> </ul>
		Limited-Use <sup>c</sup>	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
<b>Existing small major source boilers and process heaters</b>	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction on or before June 4, 2010</li> <li>Less than 10 MMBtu/hr</li> </ul>	Coal, Biomass, Oil, and Gas	<ul style="list-style-type: none"> <li>Tune-up every other year<sup>d</sup></li> <li>One-time energy assessment</li> <li>No numeric emission limits</li> </ul>
		Limited-Use	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
<b>New large major source boilers and process heaters</b>	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction after June 4, 2010</li> <li>Greater than or equal to 10 MMBtu/hr</li> </ul>	Clean Gas (Natural gas, refinery gas)	<ul style="list-style-type: none"> <li>Tune-up every year<sup>a</sup></li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
		Coal, Biomass, Oil, and Process Gas	<ul style="list-style-type: none"> <li>Tune-up every year<sup>a</sup></li> <li>No energy assessment</li> <li>Numeric emission limits for Hg, CO, HCl, and PM (or TSM)<sup>b</sup></li> </ul>
		Limited-Use	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
<b>New small major source boilers and process heaters</b>	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction after June 4, 2010</li> <li>Less than 10 MMBtu/hr</li> </ul>	Coal, Biomass, Oil, and Gas	<ul style="list-style-type: none"> <li>Tune-up every other year<sup>d</sup></li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
		Limited-Use	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>

<sup>a</sup> Except for boilers and process heaters with continuous oxygen trim system which conduct a tune-up every 5 years.

<sup>b</sup> *Total selected metals (TSM)* means the sum of the following metallic hazardous air pollutants: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

<sup>c</sup> *Limited-use boiler or process heater* means any boiler or process heater that burns any amount of solid, liquid, or gaseous fuels and has a federally enforceable average annual capacity factor of no more than 10 percent.

<sup>d</sup> Except for boilers or process heaters with a continuous oxygen trim system, or have a heat input capacity of less than or equal to 5 million Btu per hour in any of the following subcategories: unit designed to burn gas 1; unit designed to burn gas 2 (other); or unit designed to burn light liquid. These units conduct a tune-up every 5 years.

## 6J Area Source Boiler NESHAP Summary

Subcategory			Summary of Requirements
Existing large area source boilers	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction on or before June 4, 2010</li> <li>Greater than or equal to 10 MMBtu/hr</li> </ul>	Biomass and Oil (excluding limited-use boilers)	<ul style="list-style-type: none"> <li>Tune-up every other year or every 5 years*</li> <li>One-time energy assessment</li> <li>No numeric emission limits</li> </ul>
		Limited-use Biomass and Oil	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
		Coal (excluding limited-use boilers)	<ul style="list-style-type: none"> <li>No tune-ups</li> <li>One-time energy assessment</li> <li>Numeric emission limits for mercury (Hg) and carbon monoxide (CO) <ul style="list-style-type: none"> <li>Hg: 0.000022 lb/MMBtu</li> <li>CO: 420 ppmvd @ 3% O<sub>2</sub></li> </ul> </li> </ul>
		Limited-use coal	<ul style="list-style-type: none"> <li>Tune-up every 5 years</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
Existing small area source boilers	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction on or before June 4, 2010</li> <li>Less than 10 MMBtu/hr</li> </ul>	Coal, Biomass and Oil	<ul style="list-style-type: none"> <li>Tune-up every other year or every 5 years*</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
New large area source boilers	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction of the boiler after June 4, 2010</li> <li>Greater than or equal to 10 MMBtu/hr</li> </ul>	Biomass (excluding limited-use and seasonal boilers)	<ul style="list-style-type: none"> <li>Tune-up every other year or every 5 years* (no initial tune-up)</li> <li>No energy assessment</li> <li>Numeric emission limit for PM <ul style="list-style-type: none"> <li>PM: 0.03 lb/MMBtu (<math>\geq 30</math> MMBtu/hr)</li> <li>PM: 0.07 lb/MMBtu (<math>\geq 10</math> to <math>&lt; 30</math> MMBtu/hr)</li> </ul> </li> </ul>
		Oil (excluding limited-use and seasonal boilers)	<ul style="list-style-type: none"> <li>Tune-up every other year or every 5 years* (no initial tune-up)</li> <li>No energy assessment</li> <li>Numeric emission limit for PM** <ul style="list-style-type: none"> <li>PM: 0.03 lb/MMBtu</li> </ul> </li> </ul>
		Limited-use and seasonal biomass and oil	<ul style="list-style-type: none"> <li>Tune-up every 5 years (no initial tune-up)</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
		Coal (excluding limited-use boilers)	<ul style="list-style-type: none"> <li>No tune-ups</li> <li>No energy assessment</li> <li>Numeric emission limits for Hg, CO, and particulate matter (PM) <ul style="list-style-type: none"> <li>Hg: 0.000022 lb/MMBtu</li> <li>CO: 420 ppmvd @ 3% O<sub>2</sub></li> <li>PM: 0.03 lb/MMBtu (<math>\geq 30</math> MMBtu/hr)</li> <li>PM: 0.42 lb/MMBtu (<math>\geq 10</math> to <math>&lt; 30</math> MMBtu/hr)</li> </ul> </li> </ul>
		Limited-use coal	<ul style="list-style-type: none"> <li>Tune-up every 5 years (no initial tune-up)</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>
New small area source boilers	<ul style="list-style-type: none"> <li>Commenced construction or reconstruction after June 4, 2010</li> <li>Less than 10 MMBtu/hr</li> </ul>	Coal, Biomass and Oil	<ul style="list-style-type: none"> <li>Tune-up every other year or every 5 years* (no initial tune-up)</li> <li>No energy assessment</li> <li>No numeric emission limits</li> </ul>

\* If tune-up frequency is “every other year or every 5 years,” the frequency is every five years for all the following – seasonal boilers, limited use boilers, liquid fuel boilers  $\leq 5$  MMBtu/hr, and boilers with oxygen trim systems

\*\* Under certain situations, new liquid fuel-fired boilers combusting low-sulfur fuel are exempt from the PM emission limit. Refer to 6J text for details.